

# (12) UK Patent Application (19) GB (11) 2 214 684 A (13)

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(56) Documents cited

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(54) Self-correcting display for car road vehicles

(57) A display unit is used to mount a display onto a moving, rotating body. It keeps the display at an upright position so that it can be easily recognised. This is achieved by mounting the display onto a weighted nonrevolving display disc 1 that is fixed to a spindle 2 running freely in a hub 3 which is attached to and moves with the moving body. It is designed to overcome forces that act on, for example, a car wheel, it overcomes the revolvment of the wheel, it minimises the force that acts on the weights 5 on acceleration and deceleration and the disc will remain stable when a lateral or vertical force acts on it. The unit itself is balanced with a spacer 7 for smoother operation.

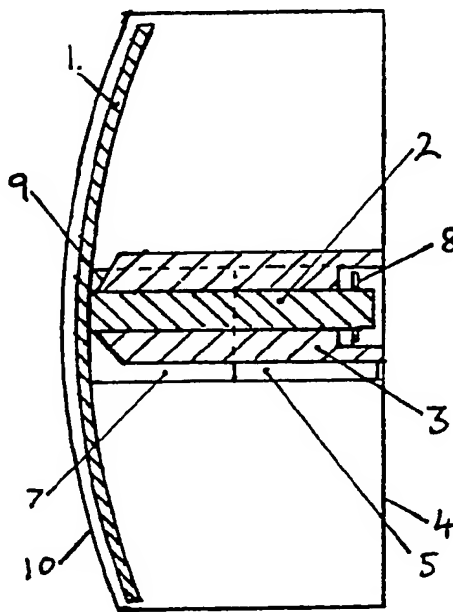


FIGURE 2

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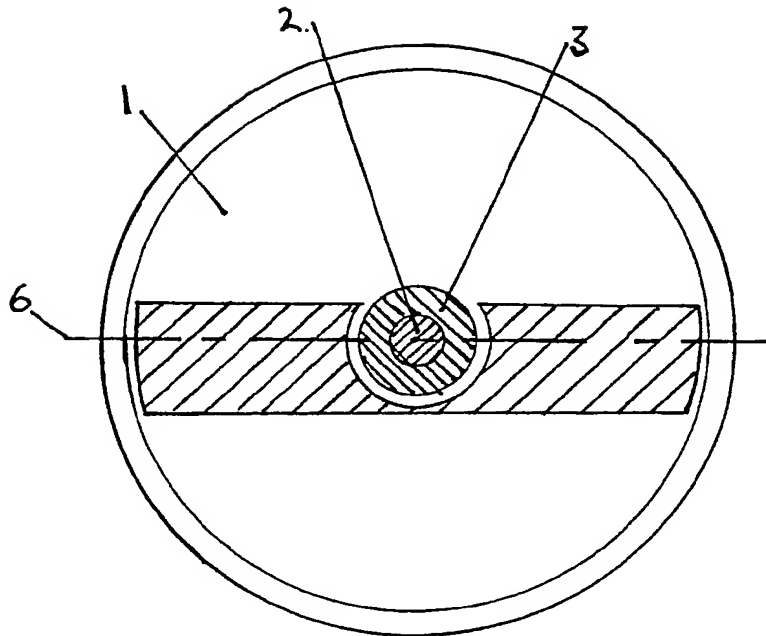


FIGURE 1.

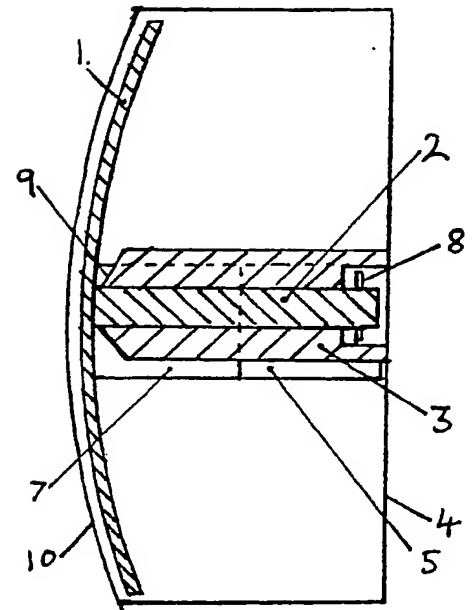


FIGURE 2

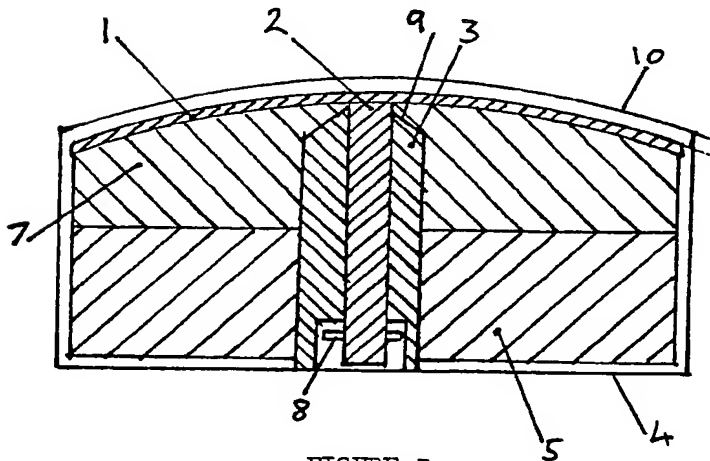


FIGURE 3.

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## CONSTANT DISPLAY UNIT.

This invention enables a display to be visibly recognisable even when it is fitted to a moving, rotating object.

It can be applied to many moving objects, that when in motion, the display becomes hard to recognise or not recognisable at all.

The display unit could be applied for example, to the revolving wheel of a car, to mount any kind of display. It would enable the display to remain recognisable even when the wheel is revolving along the road.

This is achieved as follows referring to the cross sectional drawings in figure 1, 2, and figure 3. The nonrevolving display disc 1, is fitted to a spindle 2, which runs freely in the hub 3, the hub 3 is fixed to the baseplate 4, which is secured to the moving body. The display disc 1, is kept at an upright position and prevented from rotating with the hub by attaching weights 5, to the display disc 1. The weights 5, should be fixed as near as possible to the horizontal plane 6, of the spindle and on either side of it. As shown in figure 1. The nearer the weight are fixed to the horizontal plane of the spindle will minimise the swinging action of the weight on acceleration and deceleration. The weight must be heavy enough to overcome the frictional rotation between the spindle and hub. A counterbalance spacer 7, is fitted between the weight 5, and the disc 1. This spreads the weight of the disc evenly across the spindle 2. The spindle 2, has a set end float which is set by the thrustwasher 8, and the thrust face 9. It is covered and protected by a transparent cover 10.

## CLAIMS.

1 The Constant Display Unit comprises of a weighted nonrevolving display disc, which can be any shape or size. It must rotate freely from the baseplate by means of a hub and spindle arrangement.

2 The Constant Display Unit as claimed in claim 1, wherein the display disc is weighted to prevent it from rotating with the baseplate, The weights are placed both sides of the spindle, and as near to the horizontal plane of the spindle as possible, this minimises the swinging action of the weights on acceleration and deceleration.

3 The Constant Display Unit as claimed in claim 2, wherein the display disc is weighted either side of the spindle, stabilises the disc when a vertical force acts on the unit.

4 The Constant Display Unit as claimed in claim 1, claim 2 or claim 3, wherein the disc is weighted, the weights overcome the frictional rotation between the hub and spindle.

5 The Constant Display Unit as claimed in claim 1, wherein the disc rotates freely from the baseplate, the disc has a set endfloat to prevent excessive lateral travel of the disc when a side thrust is exerted on it.

6 The Constant Display Unit as claimed in claim 1, wherein the display disc rotates freely from the baseplate, the disc has a counter balance spacer fitted between the disc and the weight. This spreads the weight of the disc evenly across the spindle and hub.

7 The Constant Display Unit substantially as described herein with reference to the accompanying drawings gives an unobstructed view of the display disc under varying conditions.

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